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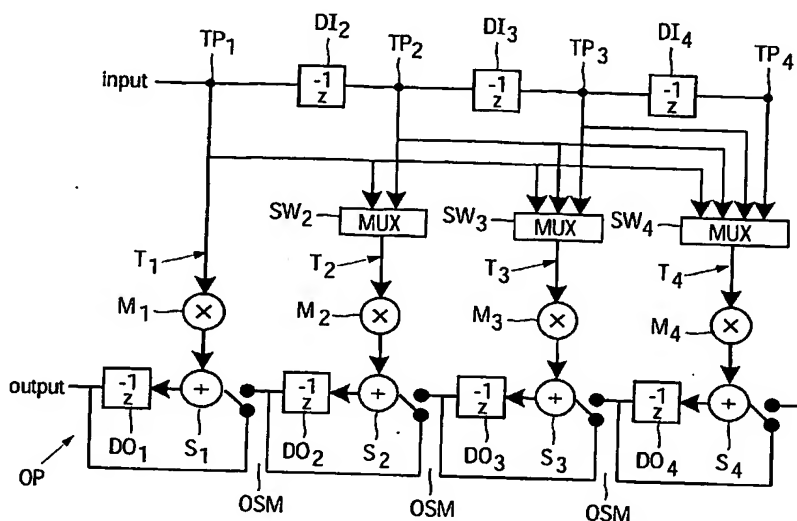
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(54) Title: A FIR FILTER DEVICE FOR FLEXIBLE UP- AND DOWNSAMPLING



(57) Abstract: A FIR filter includes an input pipeline IP with a sequence of input delay cells DI_i , each for storing an input sample, and a plurality of N input tap points TP_i . An output pipeline includes a sequence of output delay cells DO_i , each for storing a sample, a plurality of N summing elements S_i for adding at least two samples, and an output switching network OSN for accumulating output values from the summing elements. A sequence of N taps T_i are used for coupling the input pipeline to the output pipeline. Each tap includes a respective multiplier M_i for multiplying a sample from an input tap point by a coefficient. At least $N-1$ of the switching elements are arranged to enable supply of a sample from any tap point TP_j to a summing element S_i , where $j < i$.

WO 2004/088842 A2



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